



Dkt. 55099-A-PCT-US/JPW/SHS

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ilya Trakht
Serial No.: 09/664,485
Filed : September 18, 2000
For : DEVELOPMENT OF HUMAN MONOCLONAL ANTIBODIES AND USES
THEREOF

1185 Avenue of the Americas
New York, New York 10036
August 23, 2001

Assistant Commissioner for Patents
Washington, D.C. 20231

SIR:

INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. § 1.56, applicants would like to direct the Examiner's attention to the following references which are listed on the attached Form PTO-1449 (**Exhibit A**). Copies of the below listed references 29-30 are attached hereto as **Exhibits 1-2**, respectively.

1. U. S. Patent No. 4,574,116, issued to Kaplan et al. March 4, 1986;
2. U. S. Patent No. 4,613,576, issued to Cote et al. September 23, 1986;
3. U. S. Patent No. 4,618,577, issued to Handley et al. October 21, 1986;
4. U. S. Patent No. 4,634,664, issued to Oestberg January

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6, 1987;

5. U. S. Patent No. 4,634,666, issued to Engleman et al. January 6, 1987;
6. U. S. Patent No. 4,668,629, issued to Kaplan et al. May 26, 1987;
7. U. S. Patent No. 4,689,299, issued to Insel et al. August 25, 1987;
8. U. S. Patent No. 4,720,459, issued to Winkelhake January 19, 1988;
9. U. S. Patent No. 4,744,982, issued to Hunter et al. May 17, 1988;
10. U. S. Patent No. 4,761,377, issued to Glassy et al. August 2, 1988;
11. U. S. Patent No. 4,800,155, issued to Taniguchi et al. January 24, 1989;
12. U. S. Patent No. 4,916,072, issued to Tsuji et al. April 10, 1990;
13. U. S. Patent No. 4,950,595, issued to Masuho et al. August 21, 1990;
14. U. S. Patent No. 4,954,449, issued to Hunter et al. September 4, 1990;
15. U. S. Patent No. 4,997,762, issued to Hanna Jr. et al.

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March 5, 1991;

16. U. S. Patent No. 5,001,065 issued to Larrick et al.
March 19, 1991;
17. U. S. Patent No. 5,003,046, issued to Neville et al.
March 26, 1991;
18. U. S. Patent No. 5,006,470, issued to Yamaguchi et al.
April 9, 1991;
19. U. S. Patent No. 5,093,261, issued to Hagiwara et al.
March 3, 1992;
20. U. S. Patent No. 5,126,259, issued to Tada et al.
June 30, 1992;
21. U. S. Patent No. 5,196,337, issued to Ochi et al. March
23, 1993;
22. U. S. Patent No. 5,215,913, issued to Posner June
1, 1993;
23. U. S. Patent No. 5,252,480, issued to Yokota et al.
October 12, 1993;
24. U. S. Patent No. 5,298,419, issued to Masuho et al.
March 29, 1994;
25. U. S. Patent No. 5,426,046, issued to Kaplan et al.
June 20, 1995;
26. U. S. Patent No. 5,459,060, issued to Cotropia October
17, 1995;

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27. U. S. Patent No. 5,506,132, issued to Lake et al. April 9, 1996;
28. U. S. Patent No. 5,576,184, issued to Better et al. November 19, 1996;
29. U.S. Patent No. 6,197,582, issued to Trakht on March 6, 2001 (**Exhibit 1**);
30. PCT International Application No. PCT/US99/05828, filed March 18, 1999, International Publication No. WO99/47929, published September 23, 1999, on behalf of The Trustees of Columbia University in the City of New York (**Exhibit 2**);
31. Brodin T, Olsson L, Sjorgen H., "Cloning of human hybridoma, myeloma and lymphoma cell lines using enriched human monocytes as feeder layer" J.Immunol.Meth. (1983) Vol 60, 1-7;
32. Goldman-Leikin, R.E., Salwen, H.R., Herst, C.V., Variakojis, D., Bian, M.L., Le Beau, M.M., Selvanayagan, P., Marder, R., Anderson, R., Weitzman, S., Rosen, S.T., "Characterization of a novel myeloma line MM-I" J.Lab.Clin.Med. (1989) Vol 113, 335-345;
33. Kozbor, D., Roder, J., "Requirements for the establishment of high titered human monoclonal antibodies against tetanus toxoid using the Epstein-Barr virus technique" J.Immunology (1981) Vol 127, 1275-1280;
34. Kozbor, D., Tripputi, P., Roder, J.C., Croce, C.M., "A

- human hybrid myeloma for production of human monoclonal antibodies" J.Immunology (1984) Vol 133, 3001-3005;
35. Levy, R., Miller, R.A., "Tumor therapy with monoclonal antibodies" Federation Proceedings (1983) Vol 42, 2650-2656;
36. Nilsson, K., Ponten, J., "Classification and biological nature of established human hematopoietic cell lines" Int.J.Cancer (1975) Vol 15, 321-341;
37. Oestberg, L., Pursch, E., "Human x (Mouse x Human) Hybridomas Stably Producing Human Antibodies" Hybridoma (1983) Vol 2, 361-367;
38. Posner, M.R, Schlossman, S.F., Lazarus, H., "Novel approach to the construction of human "Myeloma Analogues" for the production of human monoclonal antibodies" Hybridoma (1983) Vol 2, 369-381;
39. Reading, C.L., "Theory and Methods for Immunization in Culture and Monoclonal Antibody Production" J.Immunol. Meth. (1982) Vol 53, 261-291;
40. Raison, R.L., Walker, K.Z., Halnan, C.R.E., Briscoe, D, Basten, A., "Loss of Secretion in Mouse-Human Hybrids Need Not Be Due to the Loss of a Structural Gene" J.Exp.Medicine (1982) Vol 156, 1380-1389;
41. Teng, N.N.H., Lam, K.S., Riera, F.C., Kaplan, H.S., "Construction and Testing of Mouse-Human Heteromyelomas for Human Monoclonal Antibody Production" Proc.Natl.Acad.Sci. (USA) (1983) Vol 80, 7308-7311;

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42. Weiss, M.C., Green H., "Human-Mouse Hybrid Cell Lines Containing Partial Complements of Human Chromosomes and Functioning Human Genes" Proc.Natl.Acad.Sci. (USA) (1967) Vol 58, 1104-1111.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone either of them at the number provided below.

The subject application is a continuation of PCT/US99/05828, filed March 18, 1999, which is a continuation of U.S. Serial No. 09/040,833, filed March 18, 1998. Pursuant to 37 C.F.R. §1.98(d), copies of the above-listed references 1-28 and 31-42 are not being provided since they were submitted to and considered by the United States and Trademark Office in an Information Disclosure Statement filed on November 20, 1998 in connection with the U.S. Serial No. 09/040,833 which the subject application relies on for an earlier effective filing date under 35 U.S.C. §120.

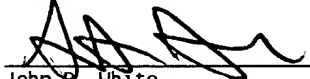


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No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

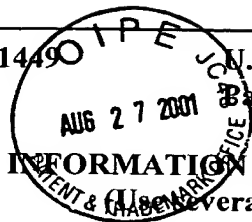
Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

 8-23-01
John P. White Date
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U.S. PATENT DOCUMENTS

Examine r Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	US 4 5 7 4 1 1 6	3/4/86	Kaplan et al.			
	US 4 6 1 3 5 7 6	9/23/86	Cote, et al.			
	US 4 6 1 8 5 7 7	10/21/86	Handley, et al.			
	US 4 6 3 4 6 6 4	1/6/87	Oestberg			
	US 4 6 3 4 6 6 6	1/6/87	Engleman, et al.			
	US 4 6 6 8 6 2 9	5/26/87	Kaplan, et al.			
	US 4 6 8 9 2 9 9	8/25/87	Insel, et al.			
	US 4 7 2 0 4 5 9	1/19/88	Winkelhake			
	US 4 7 4 4 9 8 2	5/17/88	Hunter, et al.			
	US 4 7 6 1 3 7 7	8/2/88	Glassy, et al.			

FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation	
					Yes	No
WO 9 9 4 7 9 2 9	9-23-99					

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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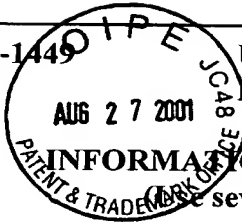
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Exhibit A

Form PTO-1449

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U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	US 4 8 0 0 1 5 5	1/24/89	Taniguchi, et al.			
	US 4 9 1 6 0 7 2	4/10/90	Tsuji, et al.			
	US 4 9 5 0 5 9 5	8/21/90	Masuh, et al.			
	US 4 9 5 4 4 4 9	9/4/90	Hunter, et al.			
	US 4 9 9 7 7 6 2	3/5/91	Hanna Jr., et al.			
	US 5 0 0 1 0 6 5	3/19/91	Larrick, et al.			
	US 5 0 0 3 0 4 6	3/26/91	Neville, et al.			
	US 5 0 0 6 4 7 0	4/9/91	Yamaguchi, et al.			
	US 5 0 9 3 2 6 1	3/3/92	Hagiwara, et al.			
	US 5 1 2 6 2 5 9	6/30/92	Tada, et al.			

FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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U.S. PATENT DOCUMENTS

Examiner Initial		Document Number							Date	Name	Class	Subclass	Filing Date if Appropriate
	US	5	1	9	6	3	3	7	3/23/93	Ochi, et al.			
	US	5	2	1	5	9	1	3	6/1/93	Posner;			
	US	5	2	5	2	4	8	0	10/12/93	Yokota, et al.			
	US	5	2	9	8	4	1	9	3/29/94	Masuho, et al.			
	US	5	4	2	6	0	4	6	6/20/95	Kaplan, et al.			
	US	5	4	5	9	0	6	0	10/17/95	Cotropia			
	US	5	5	0	6	1	3	2	4/9/96	Lake. Et al.			
	US	5	5	7	6	1	8	4	11/19/96	Better, et al.			
	US	6	1	9	7	5	8	2	3/6/01	Trakht (Exhibit 1)			

FOREIGN PATENT DOCUMENTS

		Document Number							Date	Country	Class	Subclass	Translation	
													Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Brodin T, Olsson L, Sjorgen H., "Cloning of human hybridoma, myeloma and lymphoma cell lines using enriched human monocytes as feeder layer" <u>J.Immunol.Meth.</u> (1983) Vol 60, 1-7;
		Goldman-Leikin, R.E., Salwen, H.R., Herst, C.V., Variakojis, D., Bian, M.L., Le Beau, M.M., Selvanayagan, P., Marder, R., Anderson, R., Weitzman, S., Rosen, S.T., "Characterization of a novel myeloma cell line MM-I" <u>J.Lab.Clin.Med.</u> (1989) Vol 113, 335-345;
		Kozbor, D., Roder, J., "Requirements for the establishment of high titered human monoclonal antibodies against tetanus toxoid using the Epstein-Barr virus technique" <u>J.Immunology</u> (1981) Vol 127, 1275-1280;
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	Kozbor, D., Tripputi, P., Roder, J.C., Croce, C.M., "A human hybrid myeloma for production of human monoclonal antibodies" <u>J.Immunology</u> (1984) Vol 133 , 3001;
	Levy, R., Miller, R.A., "Tumor therapy with monoclonal antibodies" <u>Federation Proceedings</u> (1983) Vol 42 , 2650-2656;
	Nilsson, K., Ponten, J., "Classification and biological nature of established human hematopoietic cell lines" <u>Int.J.Cancer</u> (1975) Vol 15 , 321-341;
	Oestberg, L., Pursch, E., "Human x (Mouse x Human) Hybridomas Stably Producing Human Antibodies" <u>Hybridoma</u> (1983) Vol 2 , 361-367;

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		Weiss, M.C., Green H., "Human-Mouse Hybrid Cell Lines Containing Partial Complements of Human Chromosomes and Functioning Human Genes" <u>Proc.Natl.Acad.Sci.</u> (USA) (1967) Vol 58 , 1104-1111.

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